

4402.0 - Childhood Education and Care, Australia, June 2011

Previous ISSUE Released at 11:30 AM (CANBERRA TIME) 04/05/2012

Summary

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Main features

Includes: **USE OF CHILD CARE, WORK AND CHILD CARE, HOURS AND COST OF CHILD CARE, NEED FOR ADDITIONAL FORMAL CARE, EARLY CHILDHOOD EDUCATION, INFORMAL LEARNING**

Additional data

Includes: **Additional data**

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ABOUT THIS PUBLICATION

This publication presents information on child care arrangements and early childhood education for children aged 0-12 years.

Statistics in this publication were collected in June 2011 as a supplement to the Australian Bureau of Statistics' (ABS) monthly Labour Force Survey (LFS).

Information collected in the survey included: usual care arrangements (types of care, duration and cost); care arrangements used in the survey reference week (types of care, duration and cost); attendance at a preschool or preschool program (usually or in the survey reference week); need for additional formal care or preschool; early childhood education and learning activities.

Information on the concepts and methods used in the survey, reliability of the results, definitions and interpretation are included in the Explanatory Notes, Technical Note and Glossary. Unless otherwise specified, differences between data items highlighted in the Summary of Findings are statistically significant (refer to Technical Note).

This release consists of Data Cubes in spreadsheet format only. An expanded range of statistics is available in the publication [Childhood Education and Care, Australia, Datacubes, June 2011 \(cat. no. 4402.0.55.003\)](#).

ROUNDING

As estimates have been rounded, discrepancies may occur between the sum of component items and the published total. Published percentages are calculated prior to rounding and therefore some discrepancy may occur between these percentages and those that could be calculated from the rounded figures.

MORE INFORMATION ON CHILDHOOD STATISTICS

Information about Australian Bureau of Statistics' (ABS) activities in the childhood education and care field is available from the Children and Youth topic page on the ABS website. To access the topic page select 'People' under 'Topics @ a Glance' heading on the home page and then select 'Children and Youth'.

INQUIRIES

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070.

Main features



MAIN FEATURES

USE OF CHILD CARE

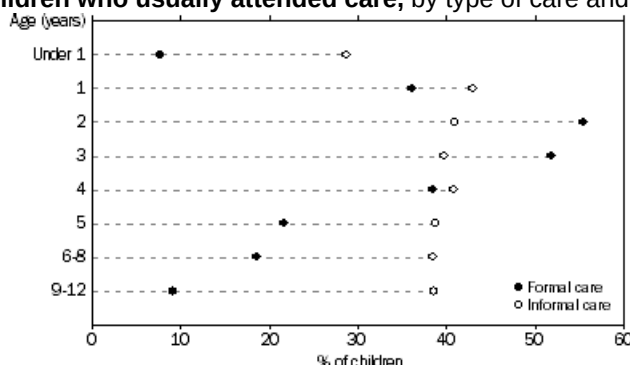
In June 2011, of the 3.6 million children aged 0-12 years, 1.9 million (52%) usually attended some type of child care. Nearly one quarter (864,300) usually attended formal care and 1.4 million usually attended informal care. Both of these figures include the 369,500 children who usually attended both formal and informal care. (Table 1)

Usual formal and informal care

Around a quarter of all children (26%) were usually cared for by their grandparents, while 14% usually attended long day care, and 8% attended before and after school care. Family day care was attended by 2%, while 1% attended occasional care. (Table 1)

Patterns of formal and informal care use varied by age (Graph 1). Under the age of 2 years, 22% of children usually attended formal care, while 36% usually attended informal care. The highest level of overall care attendance was among 2 and 3 year olds, of whom 54% usually attended formal care and 40% informal care. For school aged children (those aged 5 years and over), 14% usually attended formal care and 39% informal care. (Table 1)

Children who usually attended care, by type of care and age



Couple and one parent families

The proportion of children aged 0-12 years who usually attended any form of child care was higher in one parent families (65%) than in couple families (49%). The proportion of children attending formal care was the same in both family types (24%). In couple families, 35% of children attended informal care, compared with 55% of children in one parent families. For children in one parent families, non-resident parents were identified as the most common source of care (29%). (Table 3)

WORK AND CHILD CARE

Use of care by employed parents

Of children in couple families in which both parents were employed, 63% (1.1 million) usually attended child care. Where one parent in a couple family was employed, 31% of children (329,000) attended care and where neither parent was employed, 25% (43,800) attended care. In one parent families where the parent was employed, 82% of children (275,000) usually attended child care, compared with 49% (164,800) of those whose parent was not employed. (Table 4)

Among the 1.8 million families with at least one employed parent, in 65% parents used some form of work arrangement to allow them to care for their children. The most commonly used arrangements were flexible working

hours (43%), part-time work (32%) and working from home (19%). In one parent families, 59% of employed fathers used flexible working hours, compared with 29% in couple families. Among working mothers, similar proportions in couple families and one parent families used flexible working hours (42% compared with 45%) and part-time work (41% compared with 46%) to care for their children. (Table 5)

HOURS AND COST OF CHILD CARE

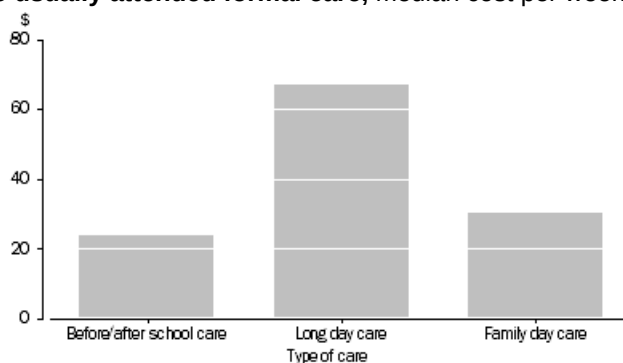
Usual hours of care

For all children who usually attended any care, the mean time spent in care was 17 hours per week. The median number of hours was 10 per week. Of those children who usually attended formal care, 40% (343,800) attended for less than 10 hours per week while 9% (74,600) attended 35 or more hours per week. Of those children who usually attended informal care, 62% (876,500) attended for less than 10 hours per week. (Table 8)

Usual net cost of care

For the majority of children who usually attended formal care (63% or 544,500), the usual net cost was less than \$80 per week. Long day care costs were typically higher than for other forms of care, with the median cost at \$67 per week (Graph 2). A large majority of children (92% or 1.3 million) who usually attended informal care did so at no cost. (Table 11) See [Explanatory Notes](#) for a description of how cost of care is estimated.

Children who usually attended formal care, median cost per week by type of care



NEED FOR ADDITIONAL FORMAL CARE

Parents reported that additional formal care was currently required for 148,600 children. Of these, 48% mainly required long day care, and 34% before or after school care. When considering all types of additional formal care needs reported, the most common reason parents currently required the care was for work related purposes (104,700 children). In the majority of cases (68% or 100,500 children) one or two additional days a week of care was required. (Table 18)

EARLY CHILDHOOD EDUCATION

Attendance at preschool or a preschool program

Of children aged 4-5 years who did not attend school (321,000), most usually attended a preschool or a preschool program (85%). Of these children, those living in one parent households were not significantly more likely to attend a preschool or a preschool program if their parent was employed (80%) than when their parent was not employed (68%). Of those children who lived in couple families where both parents were employed, 91% attended a preschool or preschool program. Of those with one parent employed and the other not employed, 88% attended preschool or a preschool program, while 68% of those with neither parent employed attended. (Table 14) See [Appendix](#) for information on CEaCS and administrative estimates of preschool attendance.

INFORMAL LEARNING

A large majority of children participated in some form of informal learning activity with their parents in the reference week. Of the 1.7 million children aged 3-8 years, only 1% did not engage in informal learning activities with their parents, compared with 9% of the 874,300 children aged 0-2 years. Reading activities were the most common type of informal learning in which parents were involved. In the survey reference week, parents read or told stories to 80% of 0-2 year olds, and told stories, read or listened to the reading of 96% of 3-8 year olds. Among 0-2 year olds,

other common informal learning activities with parents included musical activities (77%) and watching TV, videos or DVDs (69%). Children aged 3-8 years commonly engaged in watching TV, videos and DVDs (89%) and physical activities (82%) with their parents. (Tables 19 and 20)

Additional data



ADDITIONAL DATA

ADDITIONAL DATA

Summary results from this survey, compiled separately for each state, are available as a set of spreadsheets in [Childhood Education and Care, Australia, Datacubes, June 2011 \(cat. no. 4402.0.55.003\)](#).

About this Release

This publication presents information on children aged 0-12 years and their families. Information presented includes: use of formal and informal care; cost and duration of care; working arrangements used by parents to care for their children; attendance at preschool programs; requirements for additional formal care or preschool; and informal learning.

History of Changes

This document was added or updated on 16/05/2012.

27/6/2014 The table Data Cube for this publication is being replaced to correct errors in the estimates of "Whether additional formal care or preschool required", which are only reported in Table 17.

5/11/2012 A replacement data item list has been issued to correct the population relating to the following data item 'Number of hours a parent spent with child reading from a book or telling stories last week'.

16/5/2012 A replacement Data Cube has been issued to correct errors in Table 15. Median usual weekly hours and median usual weekly cost for SEIFA quintiles, and their associated RSEs, have been corrected. Other cells in this table, and other tables in this Data Cube, are not affected.

Explanatory Notes

Explanatory Notes

EXPLANATORY NOTES

INTRODUCTION

1 The statistics in this publication were compiled from data collected in the Childhood Education and Care Survey (CEaCS) that was conducted throughout Australia in June 2011 as a supplement to the Australian Bureau of Statistics (ABS) monthly Labour Force Survey (LFS).

2 The CEaCS collected information on topics including:

- usual care arrangements (types of care, duration and cost)
- care arrangements used in the survey reference week (types of care, duration and cost)

- attendance at a preschool or preschool program (usually or in the survey reference week)
- need for additional formal care or preschool
- early childhood education and learning activities

3 The main aim of the survey was to provide estimates of:

- care arrangements for children aged 0-12 years
- attendance at educational institutions for children aged 0-12 years
- informal learning activities for children aged 0-8 years
- families' requirements for formal care or preschool
- education, income and working patterns of parents of children aged 0-12 years.

4 The publication Labour Force, Australia (cat. no. 6202.0) contains information about survey design, sample redesign, scope, coverage and population benchmarks relevant to the monthly LFS. It contains definitions of demographic and labour force characteristics, and information about interviewing relevant to both the LFS and supplementary surveys. For more details on changes to the LFS in recent years see Information Paper: Labour Force Sample Design, Nov 2007 (cat. no. 6269.0).

SCOPE

5 The scope of the 2011 CEaCS was restricted to Australian resident children aged 0-12 years and their families living in private dwellings and excluded:

- any non-residents visiting Australia (diplomatic personnel of overseas governments and their families, members of non-Australian defence forces stationed in Australia, or non-residents otherwise visiting Australia)
- special dwelling type institutionalised persons (e.g. patients in hospitals, residents of homes for persons with disabilities)
- special dwelling type boarding school pupils
- very remote parts of Australia.

6 The survey also excluded members of the Australian permanent defence forces. One parent families where the parent was a member of the Australian permanent defence forces and couple families where both parents were members are out of scope. In couple families where one parent was a member of the Australian permanent defence forces, no employment information is available for that parent, but information on the family and the children was obtained from the other resident parent.

7 The survey was conducted in both urban and rural areas in all states and territories, but excluded persons living in very remote parts of Australia who would otherwise have been within scope of the survey. The exclusion of these people is unlikely to impact on state and territory estimates, except in the Northern Territory where they account for approximately 23% of the total population.

COVERAGE

8 The coverage of this survey was the same as the scope except that persons living in Indigenous communities were not enumerated for operational reasons.

9 The survey coverage also excludes persons absent from their usual residence for an extended period. One parent families where the parent was temporarily absent and couple families where both parents were temporarily absent were not enumerated. In couple families where one parent was temporarily absent, no employment information is available for that parent, but information on the family and the children was obtained from the other parent.

Coverage rules

10 The estimates in this publication relate to persons covered by the survey. In the LFS, coverage rules are applied which aim to ensure that each person is associated with only one dwelling, and hence had only one chance of selection in the survey. See Labour Force, Australia (cat. no. 6202.0) for more details.

DATA COLLECTION

11 Information was collected between 5 and 18 June 2011, through interviews conducted with parents of children aged 0-12 years. Interviews were conducted either face-to-face or over the telephone, using computer assisted

interviewing (CAI).

12 For interviews conducted between 5 and 11 June 2011, the reference week was 29 May to 4 June. For interviews conducted between 12 and 18 June, the reference week was 5 to 11 June, with the exception of those in Tasmania where the reference week was 29 May to 4 June to avoid Tasmanian school holidays.

13 In each selected household, detailed information about child care arrangements and early childhood education was collected for a maximum of two children aged 0-12 years. Information was obtained from an adult who permanently resided in the selected household and was either the child's parent or guardian. In households with more than two children aged 0-12 years, two children were randomly selected from within the same family and the complete set of information was collected for these children. In households with multiple families information was collected for children from only one family. Summary information was collected for other children in the family including the number attending child care and/or preschool and the cost of this care (including any rebates such as the Child Care Benefit).

14 Supplementary surveys are not conducted on the full LFS sample. Since August 1994, the sample for supplementary surveys has been restricted to the first 7 of the 8 months during which a dwelling is enumerated in the LFS (i.e. seven-eighths of the LFS sample).

15 Approximately 96.7% of selected households were fully responding to CEaCS.

ESTIMATION METHOD

16 Weighting is the process of adjusting results from a sample survey to infer results for the total population. To do this, a 'weight' is allocated to each covered sample unit, which for CEaCS can be either person or a household. The weight is a value which indicates how many population units are represented by the sample unit. The first step in calculating weights for each unit is to assign an initial weight, which is the inverse of the probability of being selected in the survey.

Population benchmarks

17 The initial weights were calibrated to align with independent estimates of the population of interest, referred to as 'benchmarks'. Weights calibrated against population benchmarks ensure that the survey estimates conform to the independently estimated distribution of the population rather than the distribution within the sample itself. Calibration to population benchmarks helps to compensate for over or under-enumeration of particular categories of persons/ households which may occur due to either the random nature of sampling or non-response.

18 For person estimates, CEaCS was benchmarked to the Estimated Resident Population (ERP) in each state and territory, excluding the ERP living in very remote areas of Australia, at 30 June 2011. For household estimates, CEaCS was benchmarked to independently calculated estimates of the total number of households in Australia with children aged under 13 years. CEaCS estimates do not (and are not intended to) match estimates for the total Australian person/household population obtained from other sources (which may include persons living in very remote parts of Australia).

Estimation

19 Survey estimates of counts of persons or households are obtained by summing the weights of persons or households with the characteristic of interest.

CHANGES BETWEEN SURVEYS

20 In the 2011 CEaCS, for children aged 2-6 years, information was collected separately on current and expected requirements for additional formal care and preschool. In 2008, the survey asked only about either formal care or preschool, whichever the parent identified as most required.

21 The 2011 CEaCS asked about 'usual' use of each type of care before asking about 'last week', while the 2008 survey asked these questions in the opposite order. This change may have affected the way parents reported their use of care.

22 The amount of rebate available on child care costs has changed since 2008. For more information see Child Care Benefit and the Child Care Rebate below.

23 Every 5 years, following the availability of data from the Census of Population and Housing, the ABS reviews the LFS sample design. For more information see [Information Paper: Labour Force Sample Design, Nov 2007 \(cat. no.](#)

USING THE DATA

24 To minimise the reporting load on families in CEaCS, parental educational attainment and participation information was only collected from those households entering the LFS in June 2011. For the remaining CEaCS sample in June 2011, parental education data had been collected in the May 2011 LFS supplementary survey, the Survey of Education and Work, and these data were used in CEaCS. For 5% of parents in CEaCS, education data could not be matched or was otherwise unavailable.

25 Care needs to be taken when comparing the 2011 CEaCS data with other surveys or administrative data, as the CEaCS collects information on usual child care and preschool attendance patterns as well as attendance in the survey reference week at a point in time (June 2011).

26 Information about the working arrangements used by parents to help care for their child was not available for parents who were out of scope of the labour force survey for any reason (see Scope and Coverage above).

CHILD CARE BENEFIT AND THE CHILD CARE REBATE

27 The Child Care Benefit (CCB) was introduced in July 2000 and replaced Child Care Assistance and the Child Care Rebate. The CCB is available to families who use approved and registered care.

28 Families using approved child care services can choose to receive their CCB as reduced child care fees (benefit paid direct to provider) or as a lump sum payment at the end of the financial year (benefit paid direct to parent).

29 Families who receive the CCB for approved care may also be eligible to receive the Child Care Rebate (CCR) which was introduced in July 2009. Prior to 2009, the CCR was known as the Child Care Tax Rebate (CCTR) and in the 2008 CEaCS, this was used to calculate cost of child care. The CCR entitles eligible families to a rebate of 50% of out-of-pocket child care costs after the CCB has been applied. In 2008 the CCTR was 30% of out-of-pocket child care costs. For more information on different types of family assistance, see <<http://www.familyassist.gov.au>>.

COST OF CARE

30 Within this publication, cost of care is reported as the net cost of care to the parents after the CCB and CCR have been deducted, estimated based on a number of variables in the CEaCS.

31 Most families receive the CCB in the form of a fee reduction that is paid directly to the child care service provider. In these cases, questions in the 2011 CEaCS prompt families to report the out of pocket amount they have paid to the child care service provider after CCB.

32 In a minority of cases, where parents had claimed or intended to claim the CCB as a lump sum, the amount of CCB has been estimated. The CCB was estimated based on information provided in the CCB Ready Reckoner 2010-2011 and the Child Care Service Handbook 2010-2011 provided by the Department of Education, Employment and Workplace Relations. The value of the CCB can be calculated using information about: the type of care; the number of hours of care; the standard hourly rate; family income; number of children in the family using child care; whether the child attends school; and for long day care and family day care, whether the care is part-time or full-time.

33 In estimating the CCB for the small number of cases where parents were claiming a lump sum payment, it was assumed that:

- if the parent intended to claim the CCB, then the care provider was eligible (i.e. an approved or registered child care service)
- basic eligibility requirements for the benefit were met (e.g. residency and children's immunisation)
- the parent would be willing to provide their tax file number to the Family Assistance Office, which would enable them to obtain the CCB above minimum rates (depending upon the parents' income)
- the parent met the CCB work, study, training test, which is required for CCB in relation to registered care and is required for CCB in excess of 24 hours care per week for approved care.

34 The CCR work, study, training test was applied if families received the CCB or were intending to claim the CCB for approved care. The reduction in child care fees was calculated on the out-of-pocket expenses incurred by families for approved care after the CCB. As assumptions were made about families' eligibility for the CCB and CCR, care should be taken when using estimates of cost of care data presented in this publication.

35 From 2008 to 2011, the following changes have been made to the calculation of estimated net cost of care:

- In 2008, the CCR rebated 30% of out-of-pocket expenses for approved child care whereas in 2011 the CCR rebated 50% of costs
- The income brackets used to calculate CCB were indexed up between 2008 and 2011
- An upper limit for CCR of \$7500 per child per year was applied in 2011.
- The CCR is only claimable if both parents are working, studying or looking for work. In 2008, the CCR was applied to all parents regardless of whether these conditions were met.

REQUIREMENTS FOR ADDITIONAL FORMAL CHILD CARE AND PRESCHOOL

36 The 2011 CEaCS collected information on whether parents would like their child to attend more formal care or preschool than they were attending at the time of the survey. This includes instances in which children were already attending care or preschool and parents wished for them to attend more, as well as instances in which children did not attend any care or preschool and parents wished for them to attend. It does not include instances in which parents wish to change service providers but not type or quantity of service.

37 These measures are not intended to provide an indicator of the number of additional formal care or preschool places required, the 'unmet demand' for formal care or preschool, or the number of children on waiting lists for formal care or preschool. This is because CEaCS cannot capture the likelihood that a parent will take steps to access the care or preschool they require, or place their child in this care or preschool. Various factors including cost, location and the perceived suitability or quality of the service will have an influence on whether parents take these steps.

RELIABILITY OF ESTIMATES

38 All sample surveys are subject to error which can be broadly categorised as either sampling or non-sampling error.

39 Sampling error is the difference between the published estimates, derived from a sample of persons, and the value that would have been produced if the total population (as defined for the scope of the survey) had been included in the survey. For more information refer to the [Technical Note](#).

40 Non-sampling error may occur in any collection, whether it is based on a sample or a full count such as a census. Sources of non-sampling error include non-response, errors in reporting by respondents or recording of answers by interviewers and errors in coding and processing data. Every effort is made to reduce non-sampling error by careful design and testing of the questionnaire, training and supervision of interviewers and extensive editing and quality control procedures at all stages of data processing.

DATA QUALITY

41 Information in this survey is collected in person or by telephone from parents and hence may differ from that which might be obtained from other sources (such as administrative data) or via other methodologies (such as a paper form). This factor should be considered when interpreting the estimates in this publication. Please see [Appendix](#) for a comparison of CEaCS data with administrative data on preschools.

PRODUCTS AND SERVICES

42 Summary results from this survey, compiled separately for each state, are available as a set of spreadsheets in [Childhood Education and Care, Australia Datacubes](#) (cat. no. 4402.0.55.003) from the ABS website <www.abs.gov.au> or on request to the ABS.

43 For users who wish to undertake more detailed analysis of the survey data, an expanded confidentialised unit record data file (CURF) is proposed to be available in the second half of 2012. The Expanded CURF will be accessible through the ABS Remote Access Data Laboratory (RADL) system. It is also anticipated that aggregated data from this survey in table format will be available through the Survey TableBuilder environment in late 2012. For further details refer to the [Microdata pages](#) on the ABS website.

44 Special tabulations are available on request. Subject to confidentiality and sampling variability constraints, tabulations can be produced from the survey incorporating data items, populations and geographic areas selected to meet individual requirements. These can be provided in printed or electronic form. Note that detailed data can be subject to high relative standard errors which in some cases may result in data being confidentialised.

45 For further information about these or related statistics, contact the National Information and Referral Service on 1300 135 070.

ACKNOWLEDGMENTS

46 ABS publications draw extensively on information provided freely by individuals, businesses, governments and other organisations. Their continued cooperation is very much appreciated; without it, the wide range of statistics published by the ABS would not be available. Information received by the ABS is treated in strict confidence as required by the Census and Statistics Act 1905.

NEXT SURVEY

47 The ABS plans to conduct this survey again in June 2014.

Glossary

GLOSSARY

Additional formal care or preschool required

Includes instances in which children were already attending care or preschool and parents wished for them to attend more, as well as instances in which children did not attend any care or preschool and parents wished for them to attend. Does not include instances in which parents/guardians wish to change service providers but not type or quantity of service.

Approved care

Child care providers that meet the requirements of the Australian Government quality assurance system, such as having a license to operate; qualified and trained staff; and meeting health, safety and other quality standards.

Before and after school care

Estimates of children's attendance at before and after school care include children who attend only before school care, only after school care, or both.

Child Care Benefit (CCB)

Assistance in the form of a payment made by the Australian Government to help with the costs of child care for families who use approved child care.

Child Care Rebate (CCR)

The Child Care Rebate covers 50 per cent of out-of-pocket child care expenses for approved child care up to the maximum legislated amount per year per child. The Child Care Rebate is available to families who have used approved child care during the year, been eligible for Child Care Benefit and have passed the work, training, study test some time during the week the approved care was provided.

Cost of care

Within this publication, cost of care is reported as the net cost of care to the parents after the CCB and CCR have been deducted.

Couple family

A couple family is based on two persons who are in a couple relationship and who are usually resident in the same household. To be included in CEaCS, a couple family must also have at least one child aged 0-12 usually resident. A 'couple relationship' includes same-sex couples.

Family

Two or more persons, one of whom is at least 15 years of age, who are related by blood, marriage (registered or de facto), adoption or fostering; and who are usually resident in the same household. Only families with children aged 0-12 years are included in CEaCS.

Family day care

A type of formal care provided in caregivers' homes.

Formal care

Regulated care away from the child's home. The main types of formal care are before and/or after school care, long day care, family day care and occasional care.

Full-time/part-time workers

Full-time workers are employed persons who usually work 35 hours or more a week as well as those who, although they usually work less than 35 hours a week, worked 35 hours or more during the reference week. Part-time workers are employed persons who usually work less than 35 hours a week and who did so during the reference week.

Government establishment

Includes any preschool/kindergarten conducted or managed principally by a state, territory or federal government agency.

Index of Relative Socio-economic Disadvantage (IRSD)

A SEIFA index derived from Census variables related to disadvantage, such as low income, low educational attainment, unemployment, and dwellings without motor vehicles.

Informal care

Unregulated care either in the child's home or elsewhere. It includes care by (step) brothers or sisters, care by grandparents, care by other relatives (including a non-resident parent) and care by other (unrelated) people such as friends, neighbours, nannies or babysitters. It may be paid or unpaid.

Informal learning

Unstructured learning activities that occur in daily life, such as reading, musical activities and physical activities.

Last week

The survey reference week. For interviews conducted between 5 and 11 June 2011, the reference week was 29 May to 4 June. For interviews conducted between 12 and 18 June, the reference week was 5 to 11 June, with the exception of those in Tasmania where the reference week was 29 May to 4 June to avoid Tasmanian school holidays.

Long day care

Regulated care that is provided to children in a dedicated centre.

Mean

The value often referred to as the 'average'. The mean of a variable is calculated by summing the values of all observations in a data set and then dividing by the number of observations in the set.

Median

The value that divides the population into two equal parts.

Non-government establishment

Includes any preschool/kindergarten conducted or managed by a non-government institution or organisation, including a Catholic school or preschool/kindergarten or an independent school or preschool/kindergarten.

Non-resident parent

A child's natural or adoptive parent who is not usually resident in the same household as the child.

Occasional care

A type of formal care provided mainly for families who require short term care for their children.

One parent family

A one parent family is based on a person who has no spouse or partner usually present in the household, but who forms a parent-child relationship with at least one child usually resident in the household. To be included in CEaCS, a one parent family must have at least one child aged 0-12 years usually resident.

Other person care

Informal care by people who are not related to the child including friends, babysitters and nannies.

Other relative care

Informal care by relatives of the child excluding parents, (step) brothers and sisters and grandparents.

Parent/guardian

Natural, step, foster or adoptive parents are considered parents in CEaCS. A guardian is a person who has the designated responsibility for a minor child, whether or not it is a legal or informal arrangement. In this publication, when the term 'parent' is used, this includes guardians.

Preschool

A service that provides educational and development programs for children prior to commencing full-time primary education. These are referred to by different terminology in different parts of Australia, including kindergarten and pre-prep.

Preschool program in a long day care

A program in a long day care centre structured to meet specific early childhood education objectives.

Registered care

Child care provided by persons and institutions who are registered with the Family Assistance Office.

Remoteness

The Australian Standard Geographical Classification (ASGC) was used to define remoteness. The Remoteness Structure is described in detail in the publication Statistical Geography Volume 1 Australian Standard Geographical Classification (ASGC) 2001 (cat. no. 1216.0).

Socio-Economic Indexes for Areas (SEIFA)

A suite of indexes created from 2006 Census data. For each index, every geographic area in Australia is given a SEIFA number which shows how disadvantaged that area is compared with other areas in Australia. Each index summarises a different set of social and economic variables.

Weekly income of parents

Total gross income received from all sources by the parent or parents in the family.

Work arrangements

Arrangements such as flexible working hours, or working from home, used by employed parents to assist them to care for their children.

Abbreviations

ABBREVIATIONS

ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
CCB	Child Care Benefit
CCR	Child Care Rebate (formerly known as Child Care Tax Rebate: CCTR)
CEaCS	Childhood Education and Care Survey
CURF	confidentialised unit record file
ECEC	Early Childhood Education and Care
FTB	Family Tax Benefit

IRSD	Index of Relative Socio-economic Disadvantage
LFS	Labour Force Survey
NSW	New South Wales
NT	Northern Territory
Qld	Queensland
RSE	relative standard error
SA	South Australia
SE	standard error
SEIFA	Socio-Economic Indexes for Areas
Tas.	Tasmania
Vic.	Victoria
WA	Western Australia

Data Comparison (Appendix)

APPENDIX DATA COMPARISON

COMPARISON OF DATA FROM CEACS AND THE NATIONAL EARLY CHILDHOOD EDUCATION AND CARE COLLECTION

Tables 1 and 2 below show data on use of preschool for 4 and 5 year olds, from CEaCS and the National Early Childhood Education and Care Collection (ECEC). Data from the ECEC is drawn from Experimental Estimates of Preschool Education, Australia, 2011. This information is only available in ECEC for five of the states and territories, so the CEaCS table shows data for the corresponding states and territories. Methodological and conceptual differences between the two collections contribute to discrepancies between these two sets of estimates.

The ECEC is an administrative data collection, in which data is collected directly from state and territory administrative records, based on information supplied by service providers. The data are subject to definitional constraints to ensure that information is only collected for services considered in-scope as a preschool program. For ECEC, a service provider is considered to be in-scope if it is providing a structured, play-based learning program, delivered by a degree-qualified teacher, aimed at children in the year or two before they commence full-time schooling.

In contrast, the CEaCS was collected by interview with parents, who were asked about their child's attendance at preschool. To ensure that parents were referring to a preschool program, state-specific wording was used in the questionnaire to reflect the common terminology for preschool, the questions were restricted to children aged 3 to 6 years, and parents were asked to state the name of the preschool their child attended. However, it was not possible to verify whether the parent was reporting on a preschool as defined in ECEC. This may have resulted in the CEaCS estimating a greater number of children attending preschool than the ECEC estimate.

There are other conceptual and definitional differences between the two tables. The ECEC table shows counts of children enrolled in a preschool program at a point in time, while the CEaCS table shows estimates of the number of children who usually attended a preschool program. The ECEC data was collected on 1-5 August 2011, while the CEaCS data was collected on 5-18 June 2011; these two periods would have been in different school terms in most jurisdictions. For more information on the ECEC, refer to National Early Childhood Education and Care Collection: Concepts, Sources and Methods, 2011.

A1 Children aged 4-5 years who usually attended a preschool program in 2011

Childhood Education and Care Survey	State and Territory				
	NSW	Vic.	Tas.	NT	ACT
Type of program					
Preschool only	47 100	64 800	7 500	2 300	2 800
Long day care with a preschool program only	35 600	12 600	(a)800	-	np
Long day care with a preschool program and preschool	(a)2 700	(b)6 700	(a)400	(a)300	np
Total children usually attended a preschool program	85 300	84 100	8 700	2 600	4 800

- nil or rounded to zero (including null cells)

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) estimate has a relative standard error greater than 50% and is considered too unreliable for general use

(b) estimate has a relative standard error of 25% to 50% and should be used with caution

A2 Children aged 4-5 years enrolled in a preschool program in 2011

Experimental Estimates of Preschool Education	NSW	State and Territory Vic.	Tas.	NT	ACT
Type of program					
Preschool only	35 200	55 100	6 300	3 000	(a)3 600
Long day care with a preschool program only	27 100	11 800	100	100	600
Long day care with a preschool program and preschool	2 100	600	200	100	500
Total children usually attended a preschool program	64 400	67 500	6 600	3 200	4 700

(a) Australian Capital Territory only includes government preschools and is not a complete representation of the preschool sector.

Quality Declaration

QUALITY DECLARATION - SUMMARY

INSTITUTIONAL ENVIRONMENT

For information on the institutional environment of the Australian Bureau of Statistics (ABS), including the legislative obligations of the ABS, financing and governance arrangements, and mechanisms for scrutiny of ABS operations, please see [ABS Institutional Environment](#).

RELEVANCE

The Childhood Education and Care survey provides information about child care arrangements and early childhood education for children aged between 0–12 years of age.

This survey was conducted as a supplement to the Labour Force Survey (LFS). As a result, persons excluded from the LFS were also excluded from this survey (see Explanatory Notes of [Labour Force, Australia \(cat. no. 6202.0\)](#) for standard LFS exclusions). Additional exclusions from this survey were very remote areas of Australia, any non-residents visiting Australia (diplomatic personnel of overseas governments, members of non-Australian defence forces stationed in Australia, or non-residents otherwise visiting Australia), and residents of non-private dwellings such as hospitals, hotels and motels.

Information collected in the survey included: usual care arrangements (types of care, duration and cost); care arrangements used in the survey reference week (types of care, duration and cost); attendance at a preschool or preschool program (usually or in the survey reference week); need for additional formal care or preschool; early childhood education and learning activities.

TIMELINESS

The Childhood Education and Care survey is conducted throughout Australia every three years in June, as a supplement to the monthly LFS. The ABS has been conducting similar surveys since 1969. Until 2005, these were known as the Child Care Surveys. Data from the survey are released approximately eleven months after they have been collected.

ACCURACY

The LFS is designed to provide estimates primarily for the whole of Australia and, secondly, for each state and territory.

Two types of error are possible in an estimate based on a sample survey: non-sampling error and sampling error.

Non-sampling error arises from inaccuracies in collecting, recording and processing the data. Every effort is made to minimise reporting error by the careful design of questionnaires, intensive training and supervision of interviewers, and efficient data processing procedures.

Sampling error occurs because a sample, rather than the entire population is surveyed. One measure of the likely difference resulting from not including all dwellings in the survey is given by the standard error. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if all dwellings had been included in the survey and about nineteen chances in twenty that the difference will be less than two standard errors.

Every 5 years, following the availability of data from the Census of Population and Housing, the ABS reviews the LFS sample design. As a result of the review following the 2006 Census, the new sample design, implemented over the period November 2007 to June 2008, resulted in a smaller sample size from July 2008. For more information see [Information Paper: Labour Force Sample Design, Nov 2007 \(cat. no. 6269.0\)](#).

COHERENCE

The ABS seeks to maximise consistency and comparability over time by minimising changes to the survey. Sound survey practice, however, requires ongoing development to maintain the integrity of the data. For changes between iterations of the survey, please refer to the Explanatory Notes.

INTERPRETABILITY

Detailed information on the terminology, classifications and other technical aspects associated with the Childhood Education and Care Survey can be found in the relevant web pages included with this release.

ACCESSIBILITY

Tabulated data and associated RSEs are available in spreadsheet format from the Downloads tab.

Unit record data from the Childhood Education and Care Survey will be released subsequent to the initial release in a Confidentialised Unit Record File (CURF). A CURF is available for each iteration of this survey since 1999. The CURF facilitates interrogation and analysis of survey data. For further details refer to the Microdata pages on the ABS website.

Data are also available on request. Note that detailed data can be subject to high relative standard errors which in some cases may result in data being confidentialised.

It is anticipated that data from this survey will be accessible in the Survey TableBuilder environment, enabling users to create tabulated output as required. For further details refer to the Microdata pages on the ABS website.

For further information about these or related statistics, contact the National Information and Referral Service on 1300 135 070.

Data quality (Technical Note)

TECHNICAL NOTE DATA QUALITY

ESTIMATION PROCEDURE

1 Estimates of children are derived using a ratio estimation procedure which ensures that estimates conform to an independently estimated state by age by sex distribution of children in the population, rather than to the state by age by sex distribution within the sample itself. Estimates of families conform to an independently estimated state by household composition distribution in the population, where household composition was defined by the number of adults and children within a household.

RELIABILITY OF ESTIMATES

2 Since the estimates in this publication are based on information obtained from a sample, they are subject to sampling variability. That is, they may differ from those estimates that would have been produced if all dwellings had been included in the survey. One measure of the likely difference is given by the standard error (SE), which indicates the extent to which an estimate might have varied by chance because only a sample of dwellings (or households) was included. There are about two chances in three (67%) that a sample estimate will differ by less than one SE from the number that would have been obtained if all dwellings had been included, and about 19 chances in 20 (95%) that the difference will be less than two SEs.

3 Another measure of the likely difference is the relative standard error (RSE), which is obtained by expressing the SE as a percentage of the estimate. The RSE is a useful measure in that it provides an immediate indication of the percentage errors likely to have occurred due to sampling, and thus avoids the need to refer also to the size of the estimate:

$$RSE\% = \left(\frac{SE}{estimate} \right) \times 100$$

4 RSEs for the 2011 Childhood Education and Care Survey have been calculated using the Jackknife method of variance estimation. This involves the calculation of 60 'replicate' estimates based on 60 different subsamples of the obtained sample. The variability of estimates obtained from these subsamples is used to estimate the sample variability surrounding the estimate.

5 RSEs of all the estimates in this publication are included in the Data Cubes released as part of the publication and available from the Downloads tab.

6 In this publication, only estimates (numbers and proportions, means and medians) with RSEs less than 25% are

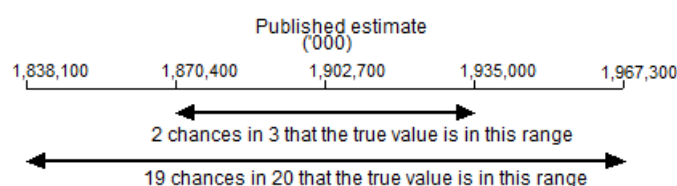
considered sufficiently reliable for most purposes. Estimates with larger RSEs have been included and are preceded by an asterisk (e.g. *13.5) to indicate they are subject to high sample variability and should be used with caution. Estimates with RSEs greater than 50% are preceded by a double asterisk (e.g. **2.1) to indicate that they are considered too unreliable for general use.

CALCULATION OF STANDARD ERROR

7 SEs can be calculated using the estimates (counts or proportions) and the corresponding RSEs. For example, in Table 1 the estimated number of children aged 0-12 years who had usual child care arrangements was 1,902,700 and the associated RSE is 1.7%. The SE is calculated by:

$$\begin{aligned} SE \text{ of estimate} &= \left(\frac{RSE}{100} \right) \times \text{estimate} \\ &= 0.017 \times 1,902,700 \\ &= 32,300 \text{ (rounded to nearest 100)} \end{aligned}$$

8 Therefore, there are about two chances in three that the actual number of children aged 0-12 with usual child care arrangements was in the range of 1,870,400 to 1,935,000 and about 19 chances in 20 that the value was in the range 1,838,100 to 1,967,300. This example is illustrated in the diagram below.



PROPORTION AND PERCENTAGES

9 Proportions and percentages formed from the ratio of two estimates are also subject to sampling errors. The size of the error depends on the accuracy of both the numerator and the denominator. A formula to approximate the RSE of a proportion is given below. The formula is only valid when the numerator is a subset of the denominator:

$$RSE\left(\frac{x}{y}\right) = \sqrt{[RSE(x)]^2 + [RSE(y)]^2}$$

10 As an example, using estimates from Table 1, of the 496,000 children aged 0-12 years who usually attended long day care, 6.6% (19,100) were aged under 1. The RSE for 496,000 is 3.1% and the RSE for 19,100 is 13.8%. Applying the above formula, the RSE for the proportion of children under the age of 1 who attended long day care is:

$$RSE = \sqrt{(13.8)^2 + (3.1)^2} = 13.4\%$$

11 Therefore, the SE for the proportion of children aged 0-12 years who usually attended long day care is 0.9 percentage points $(= (13.4/100) \times 6.6)$. Hence, there are about two chances in three that the proportion of children aged 0-12 years who usually attended long day care is between 5.7% and 7.5%, and 19 chances in 20 that the proportion is between 4.8% and 8.4%.

DIFFERENCES

12 Published estimates may also be used to calculate the difference between two survey estimates (of numbers or proportions). Such an estimate is subject to sampling error. The sampling error of the difference between two estimates depends on their SEs and the relationship (correlation) between them. An approximate SE of the difference between two estimates (x-y) may be calculated by the following formula:

$$SE(x-y) = \sqrt{[SE(x)]^2 + [SE(y)]^2}$$

13 While the above formula will be exact only for differences between separate and uncorrelated (unrelated) characteristics of subpopulations, it is expected that it will provide a reasonable approximation for all differences likely to be of interest in this publication.

SIGNIFICANCE TESTING

14 A statistical significance test for any of the comparisons between estimates over time was performed to determine whether it is likely that there is a difference between the corresponding population characteristics. The

standard error of the difference between two corresponding estimates (x and y) can be calculated using the formula above. This standard error is then used to calculate the following test statistic:

$$\left(\frac{x-y}{SE(x-y)} \right)$$

15 If the value of this test statistic is greater than 1.96 then we may say there is good evidence of a real difference in the two populations with respect to that characteristic. Otherwise, it cannot be stated with confidence that there is a real difference between the populations.

16 The imprecision due to sampling variability, which is measured by the SE, should not be confused with inaccuracies that may occur because of imperfections in reporting by respondents and recording by interviewers, and errors made in coding and processing data. Inaccuracies of this kind are referred to as non-sampling error, and they occur in any enumeration, whether it be a full count or sample. Every effort is made to reduce non-sampling error to a minimum by careful design of questionnaires, intensive training and supervision of interviewers, and efficient operating procedures.